

What is claimed is:

1. A photographic apparatus having a plurality of cameras
and one synchronous photography timing controller, each of
5 said cameras having (a) image pickup means for taking in
optical images of a photographic subject, carrying out a
photoelectric conversion thereof, and outputting the images
as electric signals for forming photo images, and (b) a
synchronous photography timing controller for controlling
10 the image pickup means to repeat an operation to obtain one
photograph in a photographic sequence according to an
external clock signal supplied from outside the cameras, to
reset the photographic sequence once to return to a start
state in response to an external reset signal supplied from
15 outside the cameras, and to start photography in response to
an external trigger signal supplied from outside the cameras,
wherein said synchronous photography timing controller
comprises:

clock signal supply means for supplying the external
20 clock signal to each of the cameras;

reset signal supply means for supplying the external
reset signal to each of the cameras; and

trigger signal supply means for supplying the exter-
nal trigger signal to each of the cameras;

25 whereby synchronous photography is performed with

said plurality of cameras according to the external clock signal, the external reset signal and the external trigger signal supplied from said synchronous photography timing controller.

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2. A photographic apparatus as defined in claim 1, wherein said synchronous photography timing controller is arranged to supply the external clock signal, the external reset signal and the external trigger signal, each in phase without a time lag between the cameras.

3. A photographic apparatus as defined in claim 1, wherein said synchronous photography timing controller is arranged to supply the external clock signal and the external reset signal, each in phase without a time lag between the cameras, and to supply the external trigger signal with a phase difference between the cameras, which is a time lag corresponding to a time taken for each of the cameras to obtain a predetermined number of images successively.

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4. A photographic apparatus as defined in claim 1, wherein said synchronous photography timing controller is arranged to supply at least the external reset signal and the external trigger signal such that each of the external reset signal and the external trigger signal has a phase difference between

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the cameras, which is a time lag corresponding to $t + N$ where t is a time taken to pick up one image and N is the number of cameras.

- 5 5. A photographic apparatus as defined in claim 1, wherein the synchronous photography timing controller is connected to the cameras through electric cables of a substantially equal length for supplying the external clock signal, the external reset signal and the external trigger signal.

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6. A photographic apparatus as defined in claim 1, wherein each of the cameras includes:

internal clock generating means for generating an internal clock signal to control progress of a photographic sequence by said image pickup means; and

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clock switching means for switching clock signals supplied to said photographic sequence control means between the external clock signal and the internal clock signal.

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7. A photographic apparatus as defined in claim 1, wherein each of the cameras includes an image intensifier having an optoelectronic amplifying function and for adjusting on-off switching, said image pickup means being a solid-state CCD image sensor, said optical images of the photographic subject

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being projected to said solid-state CCD image sensor after an optical amplification by the optoelectronic amplifying function of said image intensifier.

5 8. A photographic apparatus as defined in claim 1, wherein said image pickup means is a solid-state CCD image sensor, said optical images of the photographic subject being projected directly to said solid-state CCD image sensor.

10 9. A photographic apparatus as defined in claim 1, wherein the external trigger signal is supplied to the cameras upon lapse of a predetermined time from setting of photographic conditions.

15 10. A photographic apparatus as defined in claim 1, wherein the external trigger signal is supplied to the cameras at a point of time when said synchronous photography timing controller receives an explosion occurrence detection signal on occurrence of an explosion.

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11. A photographic apparatus as defined in claim 4, wherein said synchronous photography timing controller is arranged to supply the external clock signal having the phase difference between the cameras, which is the time lag
25 corresponding to $t \div N$.

12. A synchronous photography timing controller for use in a photographic apparatus having a plurality of cameras and one synchronous photography timing controller, each of said cameras having (a) image pickup means for taking in optical
5 images of a photographic subject, carrying out a photoelectric conversion thereof, and outputting the images as electric signals for forming photo images, and (b) a synchronous photography timing controller for controlling the image pickup means to repeat an operation to obtain one photo-
10 graph in a photographic sequence according to an external clock signal supplied from outside the cameras, to reset the photographic sequence once to return to a start state in response to an external reset signal supplied from outside the cameras, and to start photography in response to an
15 external trigger signal supplied from outside the cameras, said synchronous photography timing controller comprising:
clock signal supply means for supplying the external clock signal to each of the cameras;
reset signal supply means for supplying the external
20 reset signal to each of the cameras; and
trigger signal supply means for supplying the external trigger signal to each of the cameras;
whereby synchronous photography is performed with said plurality of cameras according to the external clock
25 signal, the external reset signal and the external trigger

signal supplied from said synchronous photography timing controller.

13. A synchronous photography timing controller as
5 defined in claim 12, wherein the external clock signal, the external reset signal and the external trigger signal are supplied, each in phase without a time lag between the cameras.

14. A synchronous photography timing controller as
10 defined in claim 12, wherein the external clock signal and the external reset signal are supplied, each in phase without a time lag between the cameras, and the external trigger signal is supplied with a phase difference between the cameras, which is a time lag corresponding to a time taken for
15 each of the cameras to obtain a predetermined number of images successively.

15. A synchronous photography timing controller as
defined in claim 12, wherein at least the external reset
20 signal and the external trigger signal are supplied such that each of the external reset signal and the external trigger signal has a phase difference between the cameras, which is a time lag corresponding to $t + N$ where t is a time taken to pick up one image and N is the number of cameras.

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16. A synchronous photography timing controller as defined in claim 12, wherein the external trigger signal is supplied to the cameras upon lapse of a predetermined time from setting of photographic conditions.

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17. A synchronous photography timing controller as defined in claim 12, wherein the external trigger signal is supplied to the cameras at a point of time when said synchronous photography timing controller receives an explosion occurrence detection signal on occurrence of an explosion.

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18. A synchronous photography timing controller as defined in claim 15, wherein the external clock signal has the phase difference between the cameras, which is the time lag corresponding to $t \div N$.

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